

# Work Order ID 73525

Thursday, September 01, 2011 2:40:51 PM



Page 1

Item ID: D3908-041

Accept



Setup Start



Revision ID:

Stop



Item Name: Crosstube Lug Assembly, Aft

Start Date: 9/1/2011 Start Qty: 4.00



Required Date: 9/9/2011 Req'd Qty: 4.00



Cust Item ID:

Customer:

Reference:

Approvals: Process Plan: *W*

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

Draw Nbr

Revision Nbr

D3908

C

100

Pick Kit

0.00



Packaging

Memo

0.00

Packaging

110

0.00



Small Fab

Memo

0.00

Small Fab

1- Assemble as per dwg  
TRIM RIVETS 1.185" LONG

120

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

*Sulor/12*

*EP 11/09/12* *(Signature)*

*EP 11/09/12* *(Signature)*

*(Signature)*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Work Order ID 73525

Thursday, September 01, 2011 2:40:51 PM



Page 2

Item ID: D3908-041

Accept



Setup Start



Revision ID:

Item Name: Crosstube Lug Assembly, Aft

Stop



Start Date: 9/1/2011 Start Qty: 4.00



Cust Item ID:

Required Date: 9/9/2011 Req'd Qty: 4.00



Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

130

Identify as per dwg & Stock Location: St 471

0.00



Packaging

Memo

0.00

Packaging

(4X)

SP

11-09-13

140

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

11/9/14

11-09-14 (4)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

Thursday, September 01, 2011 2:40:48 PM

Page 1

Work Order ID: 73525

Parent Item: D3908-041

Parent Item Name: Crosstube Lug Assembly, Aft

Start Date: 9/1/2011

Required Date: 9/9/2011

Start Qty: 4.00

Required Qty: 4.00

## Comments:

IPP RevA: New issue DD verified by:EC

IPP REVB:




As per Rev B 10-04-06 VERIFIED BY:DD

IPP Rev:C as per PCI

10.05.27 DD verf:EC

IPP Rev:D per ECN10-581

10.05.28 DD verf:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D2690-6  Lanyard Assembly		Manufactured	No			100	Each	8.0000	1	4		9/11/09/12	
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				ST020				8					
				70920				8					
D3908-1  Lug Plate, Aft Crosstube		Manufactured	No			100	Each	1.0000	2	8		9/11/09/12	
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				ST090				1					
				66167				1					
D3908-3  Stud Receiver, Lower		Manufactured	No			100	Each	5.0000	1	4		9/11/09/12	
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				ST090				5					
				68260				5					

373539 (74)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

Thursday, September 01, 2011 2:40:48 PM

Page 2

Work Order ID: 73525

Parent Item: D3908-041

Parent Item Name: Crosstube Lug Assembly, Aft

Start Date: 9/1/2011

Required Date: 9/9/2011

Start Qty: 4.00

Required Qty: 4.00

D3908-5  
Manufactured No  
100 Each 7.0000  
Eyebolt Stud

Location	Loc Qty	Loc Code
GA	1	
57428	1	
ST090	6	
59670	2	
65625	4	

1 4  
9/1/09/12

D3910-1  
Manufactured No  
100 Each 8.0000  
Crosstube Lug

Location	Loc Qty	Loc Code
ENG	6	
70160	6	
st507	2	
68263	2	

1 4  
9/1/09/12

D4091-1  
Manufactured No  
100 Each 14.0000  
Mounting Lug

Location	Loc Qty	Loc Code
ST460	14	
69605	14	

1 4  
9/1/09/12

Thursday, September 01, 2011 2:40:49 PM

Shop Packet Print

Page 2

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



# Picklist Print

Thursday, September 01, 2011 2:40:49 PM

Page 3

Work Order ID: 73525

Parent Item: D3908-041

Parent Item Name: Crosstube Lug Assembly, Aft

Start Date: 9/1/2011

Required Date: 9/9/2011

Start Qty: 4.00

Required Qty: 4.00

AN3C12A  
BOLTS  
Purchased

No

100 Each

62.0000 2 8



11/09/12

Location

Loc Qty

Loc Code

ST351	62	
117514	4	
118112	5	
118422	21	
118451	32	

AN4C13A  
BOLT  
Purchased

No

100 Each

41.0000 1 4



11/09/12

Location

Loc Qty

Loc Code

ST357	41	
118451	41	

MS17984-C413  
PIN, QUICK RELEASE  
Purchased

No

100 Each

15.0000 1 4



11/09/12

Location

Loc Qty

Loc Code

ST315	15	
114340	1	
118612	14	

4M18  
MS20615-4M20  
RIVET  
Purchased

No

100 Each

200.0000 6 24



11/09/12

Location

Loc Qty

Loc Code

GA	200	
117071	30	
118571	170	

M117411 (240)

Thursday, September 01, 2011 2:40:49 PM

Shop Packet Print

Page 3

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

Thursday, September 01, 2011 2:40:49 PM

Page 4

Work Order ID: 73525

Parent Item: D3908-041

Parent Item Name: Crosstube Lug Assembly, Aft

Start Date: 9/1/2011

Required Date: 9/9/2011

Start Qty: 4.00

Required Qty: 4.00

MS21043-3

Purchased

No

100

Each

1,337.000

2

8



Nut



*EP 11/09/12*

Location

Loc Qty

Loc Code

FG

72

103691

72

ST301

1265

112314

6

118077

259

118614

500

118686

500

*8*

MS21043-4

Purchased

No

100

Each

1,320.000

1

4



Nut



*EP 11/09/12*

Location

Loc Qty

Loc Code

FG

40

104603

40

ST301

1280

117793

476

118378

304

118686

500

*4*

Thursday, September 01, 2011 2:40:49 PM

Shop Packet Print

Page 4

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

Thursday, September 01, 2011 2:40:49 PM

Page 5

Work Order ID: 73525

Parent Item: D3908-041

Parent Item Name: Crosstube Lug Assembly, Aft



Start Date: 9/1/2011

Required Date: 9/9/2011

Start Qty: 4.00

Required Qty: 4.00

NAS1149C0332R

Purchased

No

100

Each

5,045.000

4

16



Washer



*EP 11/09/12*

Location

Loc Qty

Loc Code

FP-B

7

117291

7

ST297

5038

116304

55

117460

62

117887

169

118078

2

118179

86

118306

20

118354

4644

*16*

NAS1149C0432R

Purchased

No

100

Each

4,542.000

2

8



Washer



*EP 11/09/12*

Location

Loc Qty

Loc Code

ST297

4542

117291

4542

*8*

Thursday, September 01, 2011 2:40:49 PM

Shop Packet Print

Page 5

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

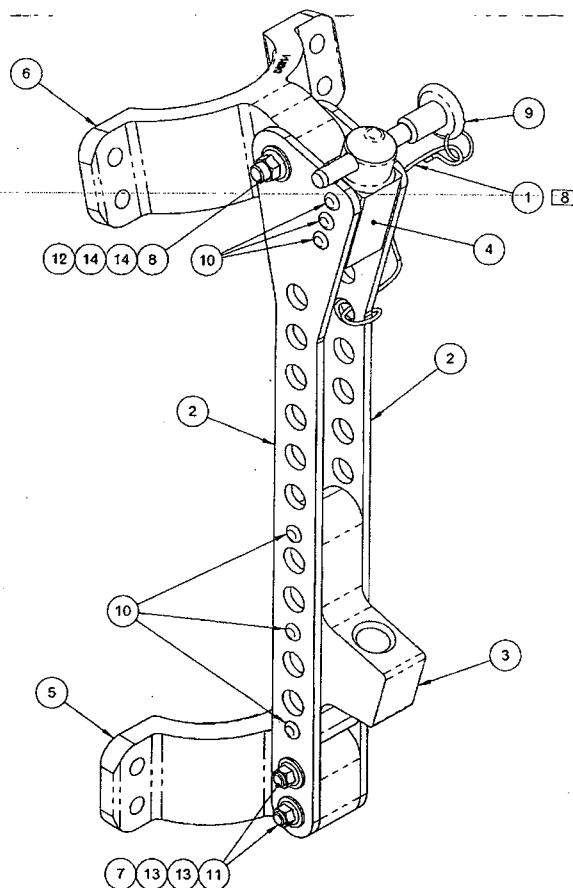
Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

ITEM	QTY.	P/N	DESCRIPTION
	X	D3908-041	X-TUBE LUG ASSY (AFT)
1	1	D2690-6	LANYARD
2	2	D3908-1	AFT X-TUBE LUG PLATE
3	1	D3908-3	STUD RECEIVER LOWER
4	1	D3908-5	EYEBOLT STUD
5	1	D3910-1	X-TUBE LUG
6	1	D4091-1	MOUNTING LUG
7	2	AN3C12A	BOLT
8	1	AN4C13A	BOLT
9	1	MS17984-C413	PIP PIN
10	6	MS20615-4M20	RIVET
11	2	MS21043-3	NUT
12	1	MS21043-4	NUT
13	4	NAS1149C0332R	WASHER
14	2	NAS1149C0432R	WASHER



**D3908-041 X-TUBE LUG ASSY (AFT)**

**NOTES:**

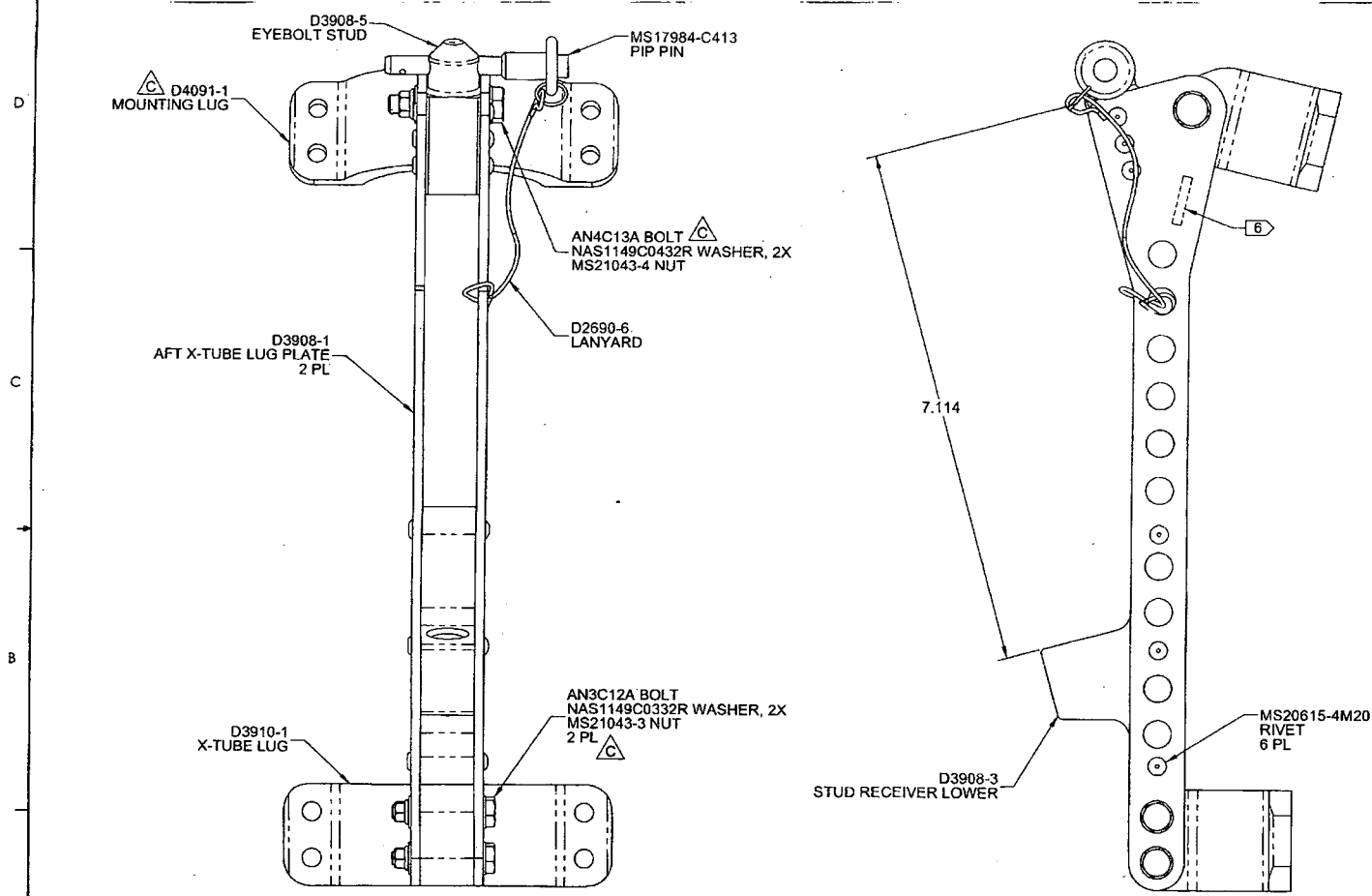
- 1) MATERIAL: N/A
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3908-041" USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT: 2.34 lbs
- 8) ATTACH TO D3908-1 BY LOOPING AROUND LIGHTENING HOLE FIRST AND THEN SECURE TO MS17984-C413 PIP PIN'S RING.

**RELEASED**  
2010-05-28  
W

C	REDESIGNED ITEM #2: ITEM#6 REPLACES QTY 1 ITEM#5; QTY 2 FOR ITEMS #7 & 11 WAS QTY 4, QTY 8 FOR ITEM #13 WAS 4, ADDED ITEMS #8, 12 & 14	MB	10.05.27
B	BOM: D3908-5 REPLACED WITH D3908-5; QTY 1 ADDED: D2690-6 & MS17984-C413. SHEET 5: ADDED D3908-5	JPH	10.04.06
A	NEW ISSUE	JPH	10.03.04
REV.	DESCRIPTION	BY	DATE
DESIGN	JPH	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN		DRAWING NO.	REV. C
CHECKED		D3908	SHEET 1 OF 5
MFG. APPR.		TITLE	SCALE
APPROVED		X-TUBE LUG ASSY (AFT)	NTS
DE APPR.		COPYRIGHT © 2010 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR REPRODUCED IN ANY FORM OR BY ANY MEANS WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	
DATE	10.05.27		

W/073525




8 7 6 5 4 3 2 1



**D3908-041 X-TUBE LUG ASSY (AFT)**

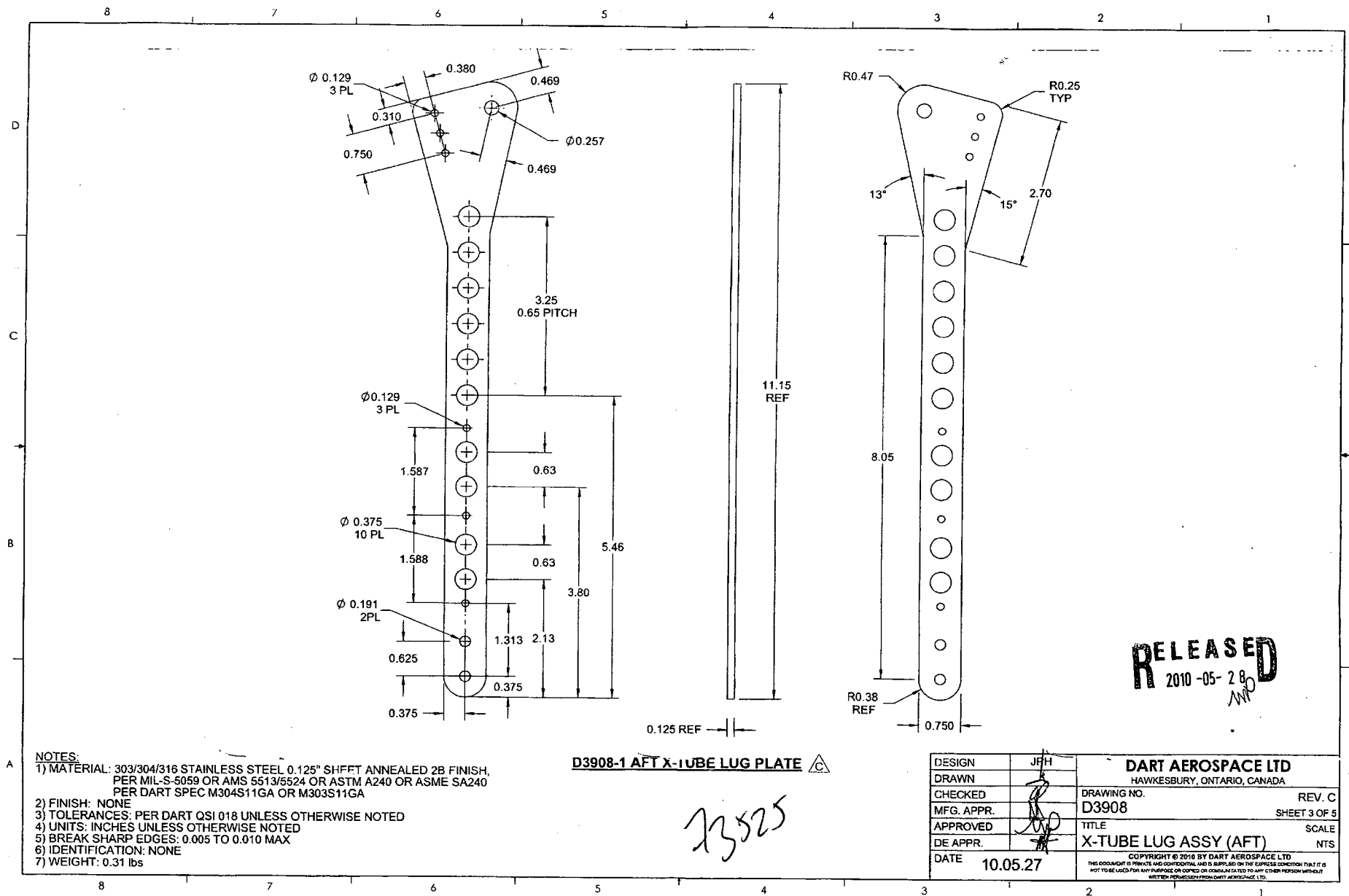
23525

**RELEASED**  
2010-05-28  
JMD

DESIGN	JFH	<b>DART AEROSPACE LTD</b>	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. C
MFG. APPR.		D3908	SHEET 2 OF 5
APPROVED		TITLE	SCALE
DE APPR.		X-TUBE LUG ASSY (AFT)	NTS
DATE	10.05.27	COPYRIGHT © 2010 BY DART AEROSPACE LTD	
THIS DOCUMENT IS PROPRIETARY AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR REPRODUCED IN ANY MANNER WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.			

8 7 6 5 4 3 2 1





**RELEASED**  
2010-05-28  
MP

**NOTES:**

- 1) MATERIAL: 303/304/316 STAINLESS STEEL 0.125" SHFFT ANNEALED 2B FINISH, PER MIL-S-5059 OR AMS 5513/5524 OR ASTM A240 OR ASME SA240 PER DART SPEC M304S11GA OR M303S11GA
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.31 lbs

**D3908-1 AFT X-TUBE LUG PLATE**



23525

DESIGN	JFH	<b>DART AEROSPACE LTD</b>	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. C
MFG. APPR.		D3908	SHEET 3 OF 5
APPROVED		TITLE	SCALE
DE APPR.		X-TUBE LUG ASSY (AFT)	NTS
DATE	10.05.27	COPYRIGHT © 2010 BY DART AEROSPACE LTD	
THIS DOCUMENT IS PROPRIETARY AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR REPRODUCED IN ANY MANNER WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.			

8 7 6 5 4 3 2 1

D

C

B

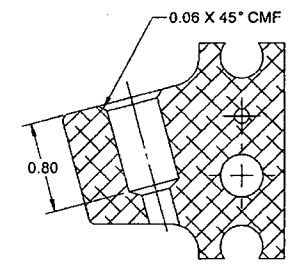
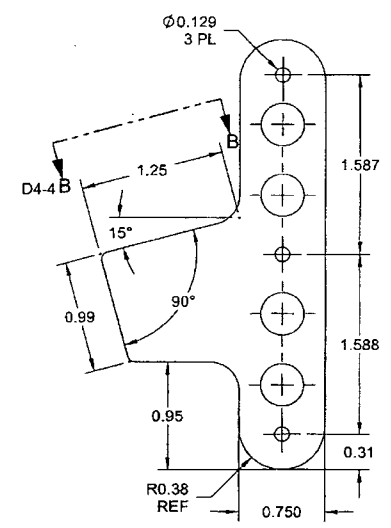
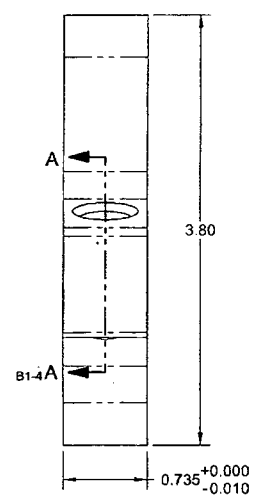
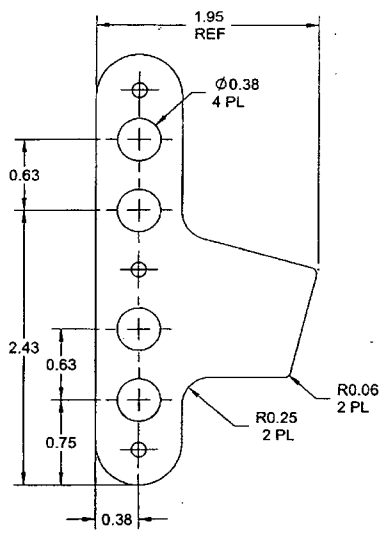
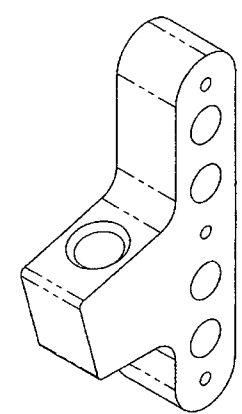
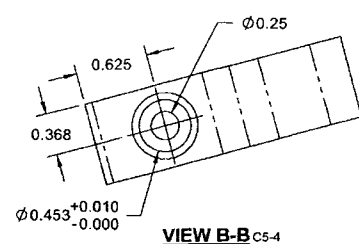
A

D

C

B

A



**D3908-3 STUD RECEIVER LOWER**

**SECTION A-A B6-4**

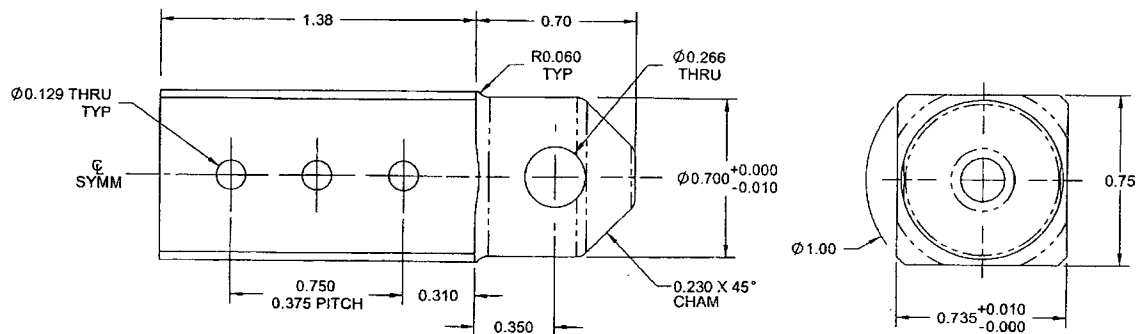
**RELEASED**  
2010-05-28

- NOTES:**
- 1) MATERIAL: 302/304/316 STAINLESS STEEL BAR, PER ASTM A276 PER DART SPEC M303B OR M304B
  - 2) FINISH: NONE
  - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
  - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
  - 6) IDENTIFICATION: NONE
  - 7) WEIGHT: 0.69 lbs

73525

DESIGN	JFH	<b>DART AEROSPACE LTD</b>	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. C
MFG. APPR.		D3908	SHEET 4 OF 5
APPROVED		TITLE	SCALE
DE APPR.		X-TUBE LUG ASSY (AFT)	NTS
DATE	10.05.27	COPYRIGHT © 2010 BY DART AEROSPACE LTD	
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSES OR DISCLOSED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.			

8 7 6 5 4 3 2 1



**D3908-5 EYEBOLT STUD**

**RELEASED**  
2010-05-28  
MP

**NOTES:**

- 1) MATERIAL: 303/304/316 STAINLESS STEEL ROUND BAR, PER ASTM A276 OR ASTM A582  
PER DART SPEC M303R OR M304R
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.26 lbs

73525

DESIGN	JFH	<b>DART AEROSPACE LTD</b>	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. C
MFG. APPR.		D3908	SHEET 5 OF 5
APPROVED		TITLE	SCALE
DE APPR.		X-TUBE LUG ASSY (AFT)	NTS
DATE	10.05.27	COPYRIGHT © 2010 BY DART AEROSPACE LTD	
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE LOANED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.			